

BUILT ENVIRONMENT WORKING GROUP DRAFT RECOMMENDATIONS  
TOP 25 LIST FOR MEETING 7

Final Rank	Recommendation	Econ Benefits	Enviro Benefits	Health Benefits	Social Benefits	Level of Effort	Benefit Relative to Cost	Timeframe	Overlap with Other Working Groups	Working Group Votes	Meeting 5 Votes	Total votes	Comments	Responsible Agencies or Partners	Potential Indicators & Metrics	Types of Actions Needed (policy change, legislation, funding, community, etc.)
1	<b>ACTION: Rehab all low-income housing to be green and healthy</b>	H	M	H	H	H	H	S-M	Energy, Waste, Green Economy	30	58	88	"Affordable housing" in DC is 60% of the AMI (Area Median Income), which translates into \$1400/month for a 2-bedroom. DC needs truly affordable housing!	DHCD, DCHA*, HFA, DMPED, OP, zoning, DCRA, DDOE, DGS, DDOT, enterprise community partners, LISC, DCSEU, DC Water	establishing baseline benchmarks for all the existing properties (mapping affordable housing is sub-task). End product must remain affordable as well as reducing energy & water use and improving air and material health-- improvements to efficiency can make it <i>more</i> affordable	policy to authorize this baseline study or other mechanism
2	<b>GOAL: Improve energy efficiency (especially in existing buildings), for overall net energy use reduction of [x%] by [2020?]?</b>	H	H	M	M	H	H	S-M	Energy, Climate, Green Economy	31	48	79		DDOE, DCRA, BIDS, DCBIA, AOBA, IMT, utilities, DCSEU, USGBC, OP, DMPED, universities, hospitals, feds, DHCD, ACEEE	Better building challenge (20% by 2020 Better Buildings Challenge?, % participation), % energy reduction total or per unit [sq ft, employees, inhabitants], also looking at energy generation with larger goal of net generation	regulatory changes, incentives for multiple approaches, aggressive building codes
3	<b>GOAL: All flat roof surfaces to be green, cool, solar, or otherwise use-optimized by 2035</b>	L-M	M	M	M-H	M-H	M	L	Water, Climate, Energy	20	53	73	Sooner is feasible if government mandated and incentivized.	DDOE, DC WATER, OP, Utilities, consultants with expertise, solar city, private enterprises	3 million feet of green roofs by 2020, heat island metrics, % of all roofs that are green/cool/solar, attention to new ways of optimizing roof usage	roof mapping, make green & cool roofs aesthetically pleasing, bringing in technical expertise, demonstration/exhibitions to drive leading edge, training of existing roofing workers, building local capacity
4	<b>GOAL: Make building performance data transparent and accessible for all buildings</b>	H	H	L	M	L	H	S	Energy, Climate	21	45	66	if actions under this are combined, this becomes top recommendation with 127 votes (66+41+20)	DDOE, OCTO, PSC, Institute for Market Transformation, Utility companies, DC SEU	explaining context is critically important, regular evaluation, labeling posted in building, real-time monitoring, make presentation consistent; metrics for waste management, water use, air quality also must be incorporated	legislation, IT innovation
5	<b>GOAL: Achieve a 40% tree canopy by 2035</b>	M	H	M	M	M	H	M	Climate, Nature, Water	20	44	64	See actions 20.1-20.8 & 31.1-31.7, including: green streets, tree canopy, LID, green roofs, restrict construction near mature trees	casey trees, DDOT, urban forestry admin, National parks, dgs, ddoe, dc water, cooperative extension services,	8600 trees/yr, w mortality rate of 6%, tree report card, iTree eco, geolocating of all trees with community participation for updating	enforcement and updating of urban forest preservation act, MS4, maintenance and broader professional support for tree care, build local capacity, need tree farm and sedum, tree and slope overlay protection area, identification of where trees should be planted for ideal shading for energy/water conservation, LID
6	<b>ACTIONS: Remove split incentives between landlords and tenants in both residential &amp; commercial sectors that block investment in energy efficiency, such as allowing submetering in residential sector without undermining rent control</b>	H	M	L	H	H	H	S-M		15	26	56		DC Council	demonstrating clearly who is paying and who is accruing the benefits,	Legislative change for residential submetering, green leases (esp. in commercial), education (esp. champions from both landlord and tenant sides), PACE?, many other mechanisms need to be identified and invented
7	<b>GOAL: Achieve reduced construction/deconstruction waste and increase diversion of waste [reuse is priority; then recycling]: minimum of 35% of all construction and demolition waste by 2015; 50% by 2020 and 90% by 2030</b>	H	H	M	M	M	H	S-L	Waste	24	27	51	Target too low! 35% is too low, 50% or higher is easily achievable	DCRA, community forklift	report % deconstruction and waste diversion-- tie to Cert of occupancy;	Public announcement for buildings that need to be demolished, and incentivizing deconstruction as process and market sector; incetivizing deconstruction in tax structure; increase market for these goods; action plan that targets art industry to reuse waste as art; increase cost of disposal; new codes
8	<b>GOAL: Create leading examples of sustainability in residential sector (both single and multi-family), overall impact is small but aim is to lead by example</b>									17	31	48			Achieve [250] Certified Passive Homes in the District by 2016, and [500] by 2020 (through new construction or retrofit) & Achieve [100] Homes built to meet the standards of the Living Building Challenge by 2016, and [200] by 2020 [numbers unrealistic?]	need to integrate pilot approach into standard practice (this often gets forgotten) --> these mechanisms are critical; education of inspectors/dcra; remove regulatory barriers;
9	<b>GOAL: Increase efficiency of land use and infrastructure by increasing density, reducing parking requirements, and creating walkable communities.</b>									25	18	43			density measures, max heights, FAR, % of zoning envelope occupied + increase envelope	revise zoning codes, remove minimum parking requirements (or max?), zoning for solar access so density doesn't block sun; greater building heights are one option
10	<b>ACTION: Implement performance-based energy codes for new construction and major renovations</b>	H	H	L	L	L-M	H	S-M	Energy	20	21	41				
11	<b>ACTION: Mandate energy audits of all buildings, including residential single-family, with transactional disclosure (sale/lease), and public reporting (online and onsite) of audit results for buildings over 25,000 sq ft</b>	M	L	L	M	M	H	M	Energy, Climate	11	11	41		DC Council, DDOE, OCTO, PSC, Institute for Market Transformation, Utility companies, DC SEU		legislation!
12	<b>GOAL: Create financial products that align public and private sectors to incentivize private capital and developers to enter underserved markets and raise the sustainability bar</b>	H	M	M	M	H	H	L	Green Economy	26	14	40		OCFO, Council, DC Bank (if created)		identify private & public sources of capital, identify existing programs and current resources; developing new programs; give banks who are financing attractive projects credit for their investment in city as a whole; explore ways to minimize risk
13	<b>ACTION: Transform property tax into a value capture user fee (or "split-rate" tax) by reducing tax on buildings and increasing tax on land</b>									17	20	37	Also known as "split-rate" tax		reductions in vacant lots and boarded up buildings, increase in bldg permit activity,	legislation!
14	<b>ACTION: Incentivize and eventually mandate retrofits of poorest performing buildings</b>	H	M	H	H	H	M	M	Energy, Water, Green Economy	21	16	37	Encourage retrofit over demolition as often as possible	DCRA, DDOE	# or retrofits done; level of retrofit	retrofits on neighborhood scale
15	<b>GOAL: Create neighborhoods with a balance of uses within walkable distances</b>	H	H	H	H	H	H	Long	Transportation	15	19	34		costar; office of economic partnership; Popularize	walkscore; multi modeal transit; incorporate into mapping tools; evaluation of diversity and quality of amenities incl. sidewalks;	Wayfinding/wayfarer signage, lighting audit for walkability (w/o light pollution); make corner stores easier; sidewalk audit;
16	<b>GOAL: Reduce water use and increase on-site energy production with long-term goal of water and energy neutrality or net positive</b>	H	H	L	L	M-H	H	S-L		18	15	33			reduction in energy/water use and increase in output	legislation/regulation/incentives for greywater; education; feed-in tariffs [guaranteed return on input to grid], same with water?; smart lighting controls (photosensitive); onsite solar/wind/geothermal energy production

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17	ACTION: Make solar thermal use widespread -> most buildings can meet all their hot water needs with solar thermal									14	15	29		solar coops	market penetration for solar thermal;	incentivize with tax breaks, rebates, codes; supporting solar coops; regulatory change to allow sharing (and storage) of excess heat production with neighbors;
18	GOAL: Relieve pressure on water infrastructure and natural waterways by improving stormwater management	H	H	M	M	H	H	M	Water, Nature	16	9	25		DDOT	reduction in stormwater runoff and surge w/o impairment of groundwater; # of LID projects (900 possible identified by DDOE); calculate amount of permeable surface <i>needed</i> to reduce stormwater runoff/surge and identify hotspot to priority target (total surface management)	permeable sidewalks, alleys, streets, parking lots; incorporate in redevelopment plans by DDOT; build in capacity to maintain (pervious services need dif. Maintenance)
19	ACTION: Simplify license agreements and district regulations to promote use of vacant lots on a temporary or permanent basis for urban agriculture and community gardens, as well as temporary uses, such as art installations and short term retail businesses	H	H	H	H	L	H	S		13	11	24			# and sq ft of vacant lots being used as gardens and other uses	legislative action; improve quick claim deed system;
20	GOAL: Make all new buildings carbon neutral , or net energy producers, by 2030	H	H	H	M	H	H	L	Climate, Water, Energy	14	10	24	Should be 2020?	partner w/ arch 2030	# and % of carbon neutral buildings	
21	GOAL: Develop free Wi-Fi infrastructure as a public equity amenity									12	11	23	Will this still bring good ROI in 10 years, versus increasing access to Smartphones?		% of district covered by it; # of access points; bandwidth	
22	ACTION: Require active public disclosure of energy performance for all buildings >25,000 sq ft by 2016	M	M	L	M	L	H	S	Energy, Climate	13	7	20		DC Council, DDOE, OCTO, PSC, Institute for Market Transformation, Utility companies, DC SEU		legislation!
23	ACTION: Draw on the UDC as educational center for sustainability, including agricultural program and establish a nursery for sedum and green roof plantings at Oak Hill, Poplar Point or other open land, and include training programs for train residents in growing plants for green roofs	M	H	M	H	M	H	L	Food	1	9	15				
24	GOAL: Require utilities at all levels to demonstrate the adoption of sustainable practices, designs and systems	H	H	M	H	M	H	S	Water, Waste, Energy	13	0	13	municipalization as backstop option?	PSC, utilities	yearly reporting of utility progress and projections of what they will do (1, 3, 5yr) incl money invested; utilities make available what their practices etc are;	
25	ACTION: By 2013, Allow in regulations and incentivize use of gray water systems, waterless urinals, living machines.								Water	10	1	11		cf above		